

OPTIMIZATION WITH UNKNOWN OBJECTIVE FUNCTION

ABSTRACT OF THE DISCLOSURE

Nonlinear optimization is applied to resource allocation, as for
5 example, buffer pool optimization in computer database software where only
the marginal utility is known. The method for allocating resources comprises
the steps of starting from an initial allocation, calculating the marginal utility
of the allocation, calculating the constraint functions of the allocation, and
applying this information to obtain a next allocation and repeating these steps
10 until a stopping criteria is satisfied, in which case a locally optimal allocation
is returned.